

Appl. No. 10/770,737
Reply to Office action of Oct. 4, 2005

Amendments to the Claims:

Please cancel claims 4, 7, 8, and 10-20 without prejudice, add new claims 21-31, and amend the claims as shown in the following:

Claim 1 (Currently Amended): A modular [[An]] electroless processing system, comprising:

- an interface section having a substrate transfer robot positioned thereon; and
- an electroless processing module positioned in communication with the interface section, the electroless processing module comprising:
 - a processing enclosure;
 - an electroless activation cell positioned in the enclosure;
 - an electroless deposition cell positioned in the enclosure; and
 - an enclosure robot configured to transfer substrates between the activation cell and the deposition cell.

Claim 2 (Currently Amended): The modular electroless processing system of claim 1, wherein the electroless activation cell and the electroless deposition cell comprise face up processing cells.

Claim 3 (Currently Amended): The modular electroless processing system of claim 2, wherein the activation cell and the deposition cell each comprise:

- a rotatable substrate support member configured to support a substrate in a configuration such that a production surface of the substrate is facing away from the substrate support member; and
- a fluid dispensing arm movably positioned to dispense a processing fluid onto the production surface of the substrate.

Claim 4 (Canceled)

Claim 5 (Currently Amended): The modular electroless processing system of claim 1, further comprising at least one substrate cleaning cell positioned in communication with the interface section.

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Claim 6 (Currently Amended): The modular electroless processing system of claim 5, wherein the at least one substrate cleaning cell comprises at least one of a spin rinse dry cell and a substrate bevel clean cell.

Claims 7-8 (Canceled)

Claim 9 (Currently Amended): The modular electroless processing system of claim 1, wherein the electroless processing module is removable from the interface section.

Claims 10-20 (Canceled)

Claim 21 (New): An electroless processing system, comprising:
a factory interface having a substrate transfer robot positioned therein, the factory interface being configured to communicate with at least one substrate containing cassette; and
at least two substrate processing modules in detachable communication with the factory interface, each of the at least two substrate processing modules including a pretreatment/post treatment cell and an electroless processing cell.

Claim 22 (New): The electroless processing system of claim 21, wherein the substrate transfer robot comprises a linear track-type robot configured to access each of the substrate processing modules.

Claim 23 (New): The electroless processing system of claim 21, wherein the at least two substrate processing modules further comprises a second substrate transfer robot positioned therein, the second substrate transfer robot being configured to transfer substrates between the substrate transfer robot in the factory interface, the pretreatment/post treatment cell, and the electroless processing cell.

Claim 24 (New): The electroless processing system of claim 21, wherein the pretreatment/post treatment cell comprises a fluid processing cell configured to conduct at least one of rinsing, cleaning, edge bead removal, and spin rinse drying.

Claim 25 (New): The electroless processing system of claim 21, wherein each of the at least two processing modules is detachable from the factory interface.

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Claim 26 (New): The electroless processing system of claim 21, wherein the at least two substrate processing modules are interchangeable.

Claim 27 (New): The electroless processing system of claim 21, wherein the pretreatment/post treatment cells are interchangeable within the processing system.

Claim 28 (New): The electroless processing system of claim 21, wherein the substrate processing cells are interchangeable within the processing system.

Claim 29 (New): A method for processing a substrate, comprising:
providing a substrate into an interface section of a substrate processing system;
transferring the substrate to a removable processing module in communication with the interface section of the substrate processing system;
conducting at least a pretreatment process on the substrate while conducting at least one of a pretreatment process and a post treatment process on the substrate in a pretreatment and post treatment cell positioned within the processing module;
conducting an electroless processing step on the substrate; and
removing a faulty processing module from the system and replacing the faulty processing module with a new processing module without halting other processes running in the system.

Claim 30 (New): The method of claim 29, wherein the interface section further comprises at least one of an annealing station and a metrology station.

Claim 31 (New): The method of claim 29, wherein the pretreatment and post treatment cell comprises a combination spin rinse dry cell and a bevel clean cell.